REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks.

Claims 1-5, 7-10, and 12-20 are pending in the application, with claims 1, 10, and 15 being independent. Applicant amends claims 1, 10, and 15 to further clarify features of the claimed subject matter. The original specification supports the claim amendments at least at page 15, lines 3-18. Therefore, claims 1-5, 7-10, and 12-20 are presented and directed to subject matter of the original disclosure.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103 A. AND B.

A. Claims 1-5, 7-10, 12-14, and 16-19 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,639,943 to Radha et al. (hereinafter "Radha"), in view of U.S. Patent No. 6,731,811 to Rose, in further view of U.S. Patent No. 5,754,233 to Takashima, in further view U.S. Patent U.S. Patent No. 5,592,399 to Keith et al. (hereinafter "Keith") and in further view of U.S. Patent No. 6,058,459 to Owen et al. (hereinafter "Owen"). Applicant respectfully traverses the rejection.

Without conceding the propriety of the stated rejection, and only to advance the prosecution of this application, Applicant amends **independent claim 1** to further clarify features of the claimed subject matter. Amended claim 1 now recites a method of processing media content utilizing a multimedia application program interface (API) which automatically identifies and adapts to a processing ***system such that the multimedia API facilitates the interoperability of one or more decoder applications with one or more video decoder accelerators***, the method comprising (emphasis added):

generating a motion compensated prediction of a region of media content;

receiving an indication of whether there are first and second quantities of residual samples remaining for refining the prediction, on a per-region basis, wherein the indication comprises one or more values associated with one or more picture-level parameters;

adding of the first quantity of residual samples to the prediction to generate a refined prediction value, when so indicated;

subtracting the second quantity of residual samples from the refined prediction value to generate a final representation, when so indicated;

sending any prediction control information necessary for generation of a motion compensated predicted region to an accelerator;

sending an indication to the accelerator of whether the first and second quantities of residual samples are to be applied; and

performing subsequent processing and/or rendering at the accelerator.

Applicant respectfully submits that the Office has failed to show that such a method is disclosed, taught, or suggested by Radha, Rose, Takashima, Keith, and/or Owen, alone or in combination.

Reference Fails to Disclose, Teach or Suggest Claimed Method for Processing Media

Applicant respectfully submits that Radha fails to disclose, teach, or suggest the claimed method for processing media. Rather, Radha describes a fine granular coding technique that includes both quality and temporal scalability. *See,* Abstract. Radha further describes that this is accomplished by utilizing a hybrid temporal/SNR scalability structure that is readily adaptable to fine granular coding techniques. *Id.*

In contrast, Applicant's amended claim 1 recites "*a method of processing media content utilizing a multimedia application program interface (API) which automatically identifies and adapts to a processing system such that the multimedia API facilitates the interoperability of one or more decoder applications with one or more video decoder accelerators*." For example, as described in Applicant's specification, highlighted in FIG. 2, API 104 identifies the operational capability of one or more of the multimedia processing system elements and selectively negotiates the processing of received multimedia content across these elements to improve multimedia processing performance. *See,* page 15, lines 14-17. Thus, API 104 may be utilized to facilitate the interoperability of any decoder application with any video decoder accelerator. *See,* page 15, lines 17-18.

Applicant respectfully submits that Rose fails to compensate for the deficiencies of Radha. Rather, Rose describes a scalable predictive coder in which the current frame of data is predicted at the enhancement-layer by processing and combining the reconstructed signal at: (i) the current base-layer (or lower layers) frame; and (ii) the previous enhancement-layer frame. *See,* Abstract. The combining rule in Rose takes into account the compressed prediction error of the base-layer, and the parameters used for its compression. *Id.*

Applicant respectfully submits that Takashima fails to compensate for the deficiencies of Radha and/or Rose, alone or in combination. Rather, Takashima describes an encoding apparatus having a memory of diminished size for lowering the production cost, the memory stores input video signals made up of plural pictures

including intra-pictures (I-pictures) and a scene change detector 101 detects change points of the input video signals. *See,* Abstract.

Applicant respectfully submits that Keith fails to compensate for the deficiencies of Radha, Rose, and/or Takashima, alone or in combination. Rather Keith describes a system and method is for encoding data wherein contiguous data values represent a video image. *See,* Abstract. Keith further describes that three contiguous data values are applied to a loop filter to provide digital filtering of the data values. *Id.* A frame differencing device in Keith performs a subtraction operation upon one of the three contiguous data values simultaneously with the performance of a filtering operation upon another one of the three contiguous data values. *Id.*

Applicant respectfully submits that Owen fails to compensate for the deficiencies of Radha, Rose, Takashima, and/or Keith, alone or in combination. Rather, Owen describes an electronic system provides direct access between a first device and a decoder/encoder and a memory. *See,* Abstract.

Thus, Radha, Rose, Takashima, Keith, and/or Owen, alone or in combination, do not disclose, teach, or suggest the claimed subject matter. Accordingly, Applicant submits that the evidence relied upon by the Office no longer supports the rejections made under § 103 and respectfully requests that the § 103 rejection be withdrawn.

Dependent claims 2-5 and 7-9 depend directly from independent claim 1, and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim.

Applicant respectfully submits that the cited references do not render the claimed subject matter obvious and that the claimed subject matter, therefore, patentably distinguishes over the cited references. For all of these reasons, Applicant respectfully requests that the § 103 rejection of these claims should be withdrawn.

Independent Claims 10

Independent claim 10 is directed to one or more computer-readable storage media and is allowable for reasons similar to those discussed above with respect to claim 1.

Without conceding the propriety of the stated rejection, and only to advance the prosecution of this application, Applicant amends independent claim 10 to further clarify features of the claimed subject matter. Amended claim 10 now recites one or more computer-readable storage media having computer-readable instructions stored thereon which, when executed by a computer, comprising the computer instructions to (emphasis added):

> implement a decoder of media content to generate a motion compensated prediction of at least a region of media content, to receive an indication of one or more sets of samples of residual information to further refine the prediction, wherein the indication comprises one or more values associated with one or more picture-level parameters, and to add a first set of such samples to the prediction to generate a modified prediction, if indicated, and to subtract a second set of such samples from the modified prediction to generate a final motion compensated prediction of the region, if indicated, and wherein the executable instructions on the storage medium cause prediction control information necessary for generation of the motion compensated prediction and the indications of whether the first and/or second quantity of residual samples are to be applied and the actual first and second sets of residual samples to be sent to an accelerator communicatively coupled to the decoder by a multimedia

> application program interface (API) for subsequent processing and/or rendering, wherein the API automatically identifies and adapts to the decoder and the ***accelerator such that the multimedia API facilitates the interoperability of one or more decoders with one or more accelerators***.

Applicant respectfully submits that the Office has failed to show that such a computer-readable storage media is disclosed, taught, or suggested by Radha, Rose, Takashima, Keith, and/or Owen, alone or in combination.

Dependent claims 12-14 depend directly from independent claim 10 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim.

Applicant respectfully submits that the cited references do not render the claimed subject matter obvious and that the claimed subject matter, therefore, patentably distinguishes over the cited references. For all of these reasons, Applicant respectfully requests that the § 103 rejection of these claims should be withdrawn.

Dependent claims 16-19 depend directly from independent claim 15 and are allowable by virtue of this dependency (discussed below in Section B), as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim.

Applicant respectfully submits that the cited references do not render the claimed subject matter obvious and that the claimed subject matter, therefore, patentably distinguishes over the cited references. For all of these reasons, Applicant respectfully requests that the § 103 rejection of these claims should be withdrawn.

B. Claims 15 and 20 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,639,943 to Radha et al. (hereinafter "Radha"), in view of U.S. Patent No. 6,731,811 to Rose, in further view of U.S. Patent No. 5,754,233 to Takashima, in further view U.S. Patent U.S. Patent No. 5,592,399 to Keith et al. (hereinafter "Keith"), in further view of U.S. Patent No. 6,058,459 to Owen et al. (hereinafter "Owen"), and in further view of U.S. Patent No. 6,539,059 to Sriram et al, (hereinafter "Sriram"). Applicant respectfully traverses the rejection.

Without conceding the propriety of the stated rejection, and only to advance the prosecution of this application, Applicant amends **independent claim 15** to further clarify features of the claimed subject matter. Amended claim 15 now recites a system implemented at least in part on a computing device, comprising (emphasis added):

> a decoder application to receive a region of media content and control generation of decoded media content; and
>
> an application program interface (API), communicatively coupling the decoder application with a hardware accelerator by way of at least one of a plurality of autonegotiation structures ***to identify a media processing capability of the system and one or more operational data structures to negotiate processing of the region of media content between one or more system elements***, wherein if the API receives an indication of one or more sets of residual samples, the first set of samples is added to a motion compensated prediction to generate a refinement of a prediction value, when so indicated, and a second set of samples is subtracted from the refined prediction value to generate a final representation, when so indicated, wherein the API automatically identifies and adapts to the decoder and the hardware accelerator ***such that the multimedia API may facilitate the interoperability of one or more decoder applications with one or more hardware accelerators***.

Applicant respectfully submits that the Office has failed to show that such a computer-readable storage media is disclosed, taught, or suggested by Radha, Rose, Takashima, Keith, Owen, and/or Sriram, alone or in combination.

Reference Fails to Disclose, Teach or Suggest Claimed System

Applicant respectfully submits that Radha fails to disclose, teach, or suggest the claimed method for processing media. Rather, Radha describes a fine granular coding technique that includes both quality and temporal scalability. *See,* Abstract. Radha further describes that this is accomplished by utilizing a hybrid temporal/SNR scalability structure that is readily adaptable to fine granular coding techniques. *Id.*

In contrast, Applicant's amended claim 15 recites "*an application program interface (API), communicatively coupling the decoder application with a hardware accelerator by way of at least one of a plurality of autonegotiation structures to identify a media processing capability of the system and one or more operational data structures to negotiate processing of the region of media content between one or more system elements, wherein if the API receives an indication of one or more sets of residual samples, the first set of samples is added to a motion compensated prediction to generate a refinement of a prediction value, when so indicated, and a second set of samples is subtracted from the refined prediction value to generate a final representation, when so indicated, wherein the API automatically identifies and adapts to the decoder and the hardware accelerator such that the multimedia API may facilitate the interoperability of one or more decoder applications with one or more hardware accelerators*." For example, as described in Applicant's specification, highlighted in FIG. 2, API 104

identifies the operational capability of one or more of the multimedia processing system elements and selectively negotiates the processing of received multimedia content across these elements to improve multimedia processing performance. *See,* page 15, lines 14-17. Thus, API 104 may be utilized to facilitate the interoperability of any decoder application with any video decoder accelerator. *See,* page 15, lines 17-18.

Applicant respectfully submits that Rose fails to compensate for the deficiencies of Radha. Rather, Rose describes a scalable predictive coder in which the current frame of data is predicted at the enhancement-layer by processing and combining the reconstructed signal at: (i) the current base-layer (or lower layers) frame; and (ii) the previous enhancement-layer frame. *See,* Abstract. The combining rule in Rose takes into account the compressed prediction error of the base-layer, and the parameters used for its compression. *Id.*

Applicant respectfully submits that Takashima fails to compensate for the deficiencies of Radha and/or Rose, alone or in combination. Rather, Takashima describes an encoding apparatus having a memory of diminished size for lowering the production cost, the memory stores input video signals made up of plural pictures including intra-pictures (I-pictures) and a scene change detector 101 detects change points of the input video signals. *See,* Abstract.

Applicant respectfully submits that Keith fails to compensate for the deficiencies of Radha, Rose, and/or Takashima, alone or in combination. Rather Keith describes a system and method is for encoding data wherein contiguous data values represent a video image. *See,* Abstract. Keith further describes that three contiguous data values are applied to a loop filter to provide digital filtering of the data values. *Id.* A frame

differencing device in Keith performs a subtraction operation upon one of the three contiguous data values simultaneously with the performance of a filtering operation upon another one of the three contiguous data values. *Id.*

Applicant respectfully submits that Owen fails to compensate for the deficiencies of Radha, Rose, Takashima, and/or Keith, alone or in combination. Rather, Owen describes an electronic system provides direct access between a first device and a decoder/encoder and a memory. *See,* Abstract.

Applicant respectfully submits that Sriram fails to compensate for the deficiencies of Radha, Rose, Takashima, Keith, and/or Owen, alone or in combination. Rather Sriram describes an apparatus for decoding a Motion Compensated-Discrete Cosine Transform (MC-DCT) video stream includes an input port to receive an MC-DCT video stream with an associated hierarchy of data structures including a sequence data structure, a picture data structure, a slice data structure, and a macroblock data structure. *See,* Abstract.

Thus, Radha, Rose, Takashima, Keith, Owen, and/or Sriram alone or in combination, do not disclose, teach, or suggest the claimed subject matter. Accordingly, Applicant submits that the evidence relied upon by the Office no longer supports the rejections made under § 103 and respectfully requests that the § 103 rejection be withdrawn.

Dependent claim 20 depends indirectly from independent claim 15 and is allowable by virtue of this dependency, as well as for additional features that it recites. Applicant also respectfully requests individual consideration of this dependent claim.

Applicant respectfully submits that the cited references do not render the claimed subject matter obvious and that the claimed subject matter, therefore, patentably

distinguishes over the cited references. For all of these reasons, Applicant respectfully requests that the § 103 rejection of this claim should be withdrawn.

CONCLUSION

Claims 1-5, 7-10, and 12-20 are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of the subject application. If any issue remains unresolved that would prevent allowance of this case, the Office is requested to contact the undersigned attorney to resolve the issue.

Respectfully submitted,

Lee & Hayes, PLLC

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